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In cooperation with State, Federal, and Other Agencies

COTTON INSECT CONDITIONS FOR WEEK ENDING AUGUST 19, 1949
(Tenth Cotton Insect Survey Report for 1949)

Boll weevils continue to increase in the various States. Damage is more severe this season than in any recent year. But thousands of bales of cotton can be saved by the continued use of insecticides to protect bolls in immature cotton.

Scattered light infestations of the cotton leafworm were reported in 5 upper coastal counties in Texas and from one county in Alabama. Due to the maturity of the cotton crop, it appears unlikely that this insect will increase in sufficient numbers to spread to other cotton areas and do material damage.

INSECTICIDES

TEXAS: Quentin Adams reported on August 13 that supplies of benzene hexachloride are needed in the Pecos Valley to control aphid infestations that have developed following the use of insecticides for bollworm control.

MISSISSIPPI: S. L. Calhoun, Stoneville, reported August 19: "The poison situation has eased slightly, but there is still a scarcity of 3-5 and 20% toxaphene. There appears a greater need for 3-5 than any other mixture."

ARKANSAS: Charles Lincoln, Extension Entomologist, reported on August 15: "Calcium arsenate continued in pretty good supply. 3-5-40 and toxaphene are tight but filling a considerable part of the demand."

NEW MEXICO: Edwin J. O'Neal, Extension Entomologist, reported on August 16: "There appears to be enough DDT and benzene hexachloride on hand to supply farmers for the next week to ten days, provided serious outbreaks of bollworms and other insects do not occur. Future delivery of insecticides to New Mexico mixing plants uncertain. Toxaphene nil or light in all areas. DDT more plentiful than benzene hexachloride which is getting tight. Adequate supply of parathion if needed."

Excerpts from WEEKLY COTTON WEATHER BULLETIN issued by the Weather Bureau, U. S. Department of Commerce, New Orleans, Louisiana, August 16:

ALABAMA: Weather favorable for cotton but weevil control continues central and north; opening rapidly south with picking fairly active.

ARIZONA: Cotton excellent; cool weather aided setting, minimized shedding.

ARKANSAS: Old cotton opening, first bales picked; stopped blooming where weevil infestation greatest.

CALIFORNIA: San Joaquin cotton still progressing well but retarded some by below normal temperatures, large bolls general; cotton beginning open Palo Verde.

GEORGIA: Cotton picking fairly active, making good progress south, boll development other areas fair; favorable for weevil activity.

LOUISIANA: Cotton picking fairly active south; continues squaring and blooming but opening increasing.

MISSISSIPPI: Cotton continues squaring and blooming but opening becoming more general; weevils still active but control measures more effective.

NEW MEXICO: Cool first of week, warmer at close; scattered showers, mostly light; crops making good advance but need more rain at scattered points.

NORTH CAROLINA: Cotton good condition, dry weather control weevils.

OKLAHOMA: Cotton progress fair to good, rains improved condition west but weather favorable for weevils eastern two-thirds, migration now in progress.

SOUTH CAROLINA: Cotton opening increasing south and central; picking becoming fairly active south; weather favorable for checking weevils but still damaging.

TENNESSEE: Cotton good condition.

TEXAS: Cotton prospects continue excellent all areas; hot days stimulated growth, aided insect control.

THE TEXAS WEEKLY CROP AND WEATHER BULLETIN, Austin, August 15, stated: "Cotton harvest went forward rapidly in southern counties and was underway in south central areas. Hot, dry weather over most of central Texas stimulated rapid development and insect control, but excessive rains along the coast and over some southern counties damaged open cotton and favored insect activity in late plantings."

BOLL WEEVIL

VIRGINIA: Boll weevil populations continue high in Nansemond County. G. M. Boush, Assistant Entomologist, Tidewater Field Station, Holland, examined 9 cotton fields on August 19. The average infestation was 66% punctured squares, ranging from 42 to 88%, as compared with an average of 69% last week. All fields in the cotton-growing counties of the State should be examined at 4 or 5-day intervals, and insecticides should be applied when 10% or more of the squares are found to be punctured.

NORTH CAROLINA: W. M. Kulash and J. E. Clement reported on August 19: "Due to the consistently high infestations in all fields during the past weeks, most of the older fields were dropped and replaced by fields of younger cotton. In all counties except Warren, Franklin, and Wake, square infestations in the younger cotton examined this week ranged higher than the 96% state average in older cotton last week. In all counties except the three mentioned above, over 95% of the squares in the younger cotton were found to be punctured. In Warren County the majority of the fields examined had young cotton containing many squares and blooms. Few bolls had been set. Four of six fields examined in the county had less than 70% of their squares punctured. One of these fields had a 58% infestation and an average of only two adult weevils per one hundred plants examined. Damage in western cotton producing counties continues to be severe."

SOUTH CAROLINA: Weather conditions in general have been favorable for cotton. Most all fields are now mature and the cotton is beginning to open. Boll weevils are present in large numbers and are causing much damage to small bolls. A total of 326 weevils were caught during the week on a migration screen trap as compared with 176 last week and 53 two weeks ago. The trap has an exposure of 15 square feet on 4 sides, north, south, east, and west, or a total of 60 square feet of total exposure. The average infestation in 65 fields in 13 Piedmont counties was 94%. More than 50% of the squares were punctured in all fields examined.

GEORGIA: Boll weevils are very numerous throughout the State, and infestations are increasing rapidly in the Piedmont due to migration from the Coastal Plain Area where cotton is mature. Unpoisoned cotton is showing excessively high infestations and serious boll damage hasoccurred in the southern and western Piedmont. Savannah River counties also show serious weevil damage. Continued boll protection will be needed throughout August in all of the Piedmont. Weevil infestation was found in all of the 150 fields examined in 44 northeastern and northwestern counties. The infestation ranged from 1 to 10% in 10 fields, from 11 to 25% in 39 fields, from 26 to 50% in 40 fields, and in 56 fields more than 50% of the squares were punctured.

ALABAMA: There have been a few scattered showers during the past two weeks, but weather conditions in general have been favorable for picking cotton. Most of the cotton has stopped squaring and is opening rapidly where the foliage is not too heavy. Weevils were abundant in all of the 57 fields examined in Barbour, Bullock, Henry, Houston, Geneva, Covington, Crenshaw, Pike, Dale, and Coffee Counties. Only 3 fields had a sufficient number of squares to make infestation counts. All others had 100% of the squares punctured. Many normal-sized grown bolls examined were infested with as many as 6 and 7 weevil grubs. Adult weevils feeding in the terminal growth of the plants were very numerous.

MISSISSIPPI: Cotton continues to square with sufficient moisture for plant growth in most Delta fields. The boll weevil situation is serious in all fields where the weevils are not controlled by the proper use of insecticides. Records from the south Delta, the most seriously damaged part of this area, show that excellent control of the weevil is being obtained where the best insecticides are being used.

LOUISIANA: The poisoning programs for boll weevil control have been completed on some fields of early-planted cotton in northeast parishes. Poisoning will be completed on at least 75% of the fields before the end of next week. Insecticides may be used in some fields of youngest cotton until September 3. The average infestation in 116 fields examined in East Carroll and Madison Parishes was 59% punctured squares. Weevil infestation was found in all fields examined. The infestation ranged from 11 to 25% in 8 fields, 26 to 50% in 33 fields, and over 50% in 75 fields.

ARKANSAS: Charles Lincoln, Extension Entomologist, reported on August 15: "General migration of boll weevils infested large acreages of previously uninfested cotton during the past week.

"Professor Isely and Mr. Gordon Barnes scouted approximately 50 fields in Crawford, Pope, Yell, Conway, Perry, Pulaski, Lonoke, St. Francis, Crittenden, Lee, Arkansas, Jefferson, Lincoln, and Desha Counties during the week. Boll weevils were found in all fields. Finding them so generally distributed in Lonoke, Lee, St. Francis, and Crittenden is proof that a general migration has occurred. The infestation and damage in this area are far below that of 1923.

"W. A. Anderson, Lawrence County Agent, writes, 'I find that the cotton boll weevil has moved into the county along the eastern side of Black River with many cotton fields heavily infested to the point of preventing the cotton from blooming at all. We have checked some of the fields where I believe 60 to 70% of the squares have been punctured. Some infestations have extended over as far as Walnut Ridge; however, at the present time as far as I know there is little or no infestation in the extreme eastern part. We are awfully short of dusting equipment and I do not know yet what the majority of the farmers will do, but it may be that we can work out a plan for using an airplane on part of it.'

"C. B. Atkinson, Sharp County Agent, tells me that infestations are heavy in his county. Some farmers are doing a good job of dusting, but there are lots of scoffers.

"W. B. Denton, Jackson County Agent, and W. P. Boyer, Jefferson County Agent, report general migration.

"F. J. Williams, commercial cotton scout, reports from Lafayette County that 14 fields of old cotton not dusted during the week has 60% infestation, an increase of 23% over the preceding week. In 25 fields the infestation decreased from 30 to 28%. In 23 fields of young cotton not dusted during the week infestation increased from 15 to 40%. In dusted fields of young cotton infestations decreased from an average of 37 to 32%."

TEXAS: Boll weevil infestations continue high in most fruiting cotton. Weevil damage to bolls is heavy in many fields. The average infestation in 100 fields in 11 central, north central, west central, and northwest counties was 26% punctured squares. No weevils were found in 53 of the 100 fields examined. The infestation ranged from 1 to 10% in 2 fields, from 11 to 25% in 2 fields, from 26 to 50% in 14 fields, and in 29 fields more than 50% of the squares were punctured.

OKLAHOMA: Weather conditions were favorable for boll weevils in central and eastern counties. Local showers to general rains fell in many sections of the cotton-producing areas in the eastern part of the State. Most of the early-planted cotton is maturing rapidly and picking is underway in some fields. The late-planted fields are now being seriously damaged by the weevil. Two to 3 applications of insecticides should be applied in all the late cotton to protect the bolls that are set. The average infestation in 116 fields in 17 counties was 43% punctured squares. No weevils were found in 37 of the 116 fields examined. The infestation ranged from 1 to 10% in 11 fields, from 11 to 25% in 9 fields, from 26 to 50% in 6 fields, and in 53 fields more than 50% of the squares were punctured.

BOLLWORMS

TEXAS: Records indicate that bollworms are continuing to cause considerable damage in late-fruiting cotton. In 16 fields examined in McLennan and Falls Counties an average of 0.6 egg and 0.5 larva were found per 100 terminals, and an average of 2% of the squares were damaged. In Jones County an average of 20.3% of the squares were damaged in 8 fields, in Runnels County, 83 eggs, 2.2% live worms and 12.3% injured squares were found in 8 fields, and in Tom Green County 51 eggs, 12 live worms, and 7% of the squares were damaged in 7 fields.

OKLAHOMA: Bollworms have seriously injured some fields of cotton in Wagoner County and have been present in many fields in other counties. Damage varies from light to heavy. A report from Payne County stated that bollworms threaten to destroy 15 acres of cotton.

ARKANSAS: Heavy infestations of bollworm continue in some fields in the Red River Bottoms. Egg laying is decreasing in Lafayette County. Scattered, local outbreaks have been reported in other areas of the State.

LOUISIANA: Bollworms were reported in a number of fields in northeastern parishes, but injurious infestations were noted in only a few fields.

NORTH CAROLINA: W. M. Kulash and J. E. Clement reported on August 19: "This week's examinations showed a great deal of damage from lepidopterous larvae. The more southern and central counties - especially Johnston, Greene, Pitt, and Edgecombe - were particularly hard hit. Bollworms have damaged a considerable number of squares, but damage to mature bolls has been fairly light. In one Johnston County field, approximately 20% of the squares had been destroyed, and young bolls were also being attacked."

SOUTH CAROLINA: Bollworm damage was reported in many fields but no severely damaged fields have been noted.

GEORGIA: Bollworm infestations were increasing in many fields following the use of insecticides.

ALABAMA: Bollworms continue to cause damage to young bolls. Approximately 25% of the bolls examined in one field in Geneva County had been damaged. The heaviest infestations are in Houston, Geneva, Pike, and Covington Counties. Some of these larvae are probably tobacco budworm.

COTTON LEAFWORM

ALABAMA: Calvin M. Jones, Entomologist, Auburn, reported on August 19: "Larvae found in 4 fields in the eastern half of Geneva County have been tentatively identified as Alabama argillacea (Hbn.). Only a few were found in each field."

TEXAS: Scattered light infestations of cotton leafworms have been reported from only 5 upper coastal counties this season.

MISCELLANEOUS INSECTS

ALABAMA: Adult square borers, Strymon melinus Hbn., were noted in a few cotton fields in Coffee, Dale, and Geneva Counties. No larvae were found.

Cotton boll cutworms were noted in small numbers in a number of fields examined.

Light infestations of red spider mites were observed in 17 of the 57 fields examined in 10 counties.

ARKANSAS: Aphids continue to build up following the use of insecticides in some areas.

Red spider mites were reported along the margins of 14 cotton fields in eastern counties, but no injury was noted.

LOUISIANA: Aphid infestations have been observed and reported in many fields in the northeast section of the State.

INSECTS ON IRRIGATED COTTON OF THE SOUTHWEST

ARIZONA: Injurious cotton insects decreased slightly in the Salt River Valley. Light stink bug infestations were found in several fields. Most of the Lygus spp. populations noted were in late-planted cotton. A few salt-marsh caterpillars and bollworms were noted in a few fields. Dusting and spraying for insect control has practically been discontinued but fields are still being treated. The injurious insect populations remain low in Pinal, Pima, Santa Cruz, Cochise, and Graham Counties.

NEW MEXICO: Edwin J. O'Neal, Extension Entomologist, reported on August 16: "Bollworms are general in all cotton-growing areas with infestations ranging from light to heavy. Infestations are spotted and vary from field to field and from county to county. Some dusting for this pest occurring in all localities. Indications now point to expected heavier infestations in all areas. All stages are found in the fields ranging from eggs to adult worms ready for pupation. This is the most serious cotton pest to be combated in New Mexico at the present time.

"Red spider buildups are reported in isolated localities from Dona Ana, Sierra, Lea, and Chaves Counties. Infestations, to date, are generally light.

"Few aphids present in most all counties; the Lovington area of Lea County reports infestation heavy enough for control applications."

TEXAS: High temperatures and low humidity caused considerable shedding of squares and young bolls in the El Paso Valley, although the plants are continuing to set forms heavily. Dusting for the control of the bollworm was continued in a large number of fields. An examination of 100 terminals in each of 10 fields showed an average of 1.6 larvae and 2.2 eggs per 100 terminals. The extensive dusting program that has been conducted in the El Paso area has reduced the injurious hemiptera insect populations to a very low level.

Quentin Adams reported on August 13: "The cotton insect control program in the Pecos area continues unrelentingly. This area has two cotton insects to control -- bollworm and plant lice. Plant lice populations have increased tremendously the past week with many fields having serious infestations. The Pecos area had several days of cool weather and plant lice have become more numerous because of cool weather and the use of insecticides to control bollworms."

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